

REMARKS

The rejection under 35 USC §112, 2nd Paragraph has been addressed by amending claim 1 to delete the recitation of “high speed” and to recite –a cannellure– as suggested by the Examiner, and by amending claim 11 to delete the word “approximately.”

The rejections of claims 1-3 under 35 USC §§102(b) and 103(a) in view of the ASM Handbook are respectfully traversed on the grounds that the ASM Handbook does not disclose forming a cannellure in a frangible **bullet**, as now claimed. Instead, the ASM Handbook concerns a “bushing or bearing,” which has entirely different dimensions than, and is made of completely different materials than, a bullet. It is respectfully submitted that nothing in the prior art suggests application of the techniques taught in the ASM Handbook to frangible bullets. In particular, none of the hundreds of patents directed to frangible bullets, or methods of making frangible bullets, discloses or suggests the inclusion of a cannellure. If a grooved bushing were suggestive of a cannellured bullet, then at least one of the patents directed to frangible bullets should have disclosed a cannellure. After all, numerous patents disclose cannellured, non-frangible bullets. However, cannelluring techniques used on conventional bullets fracture or weaken frangible bullets.

Nothing in the ASM Handbook would suggest to the ordinary artisan that the groove manufacturing techniques disclosed therein would not also fracture or weaken a frangible bullet. The only examples of a “P/M” or powdered metallurgy materials specifically discussed in the ASM Handbook (see the second column on the first page of the section of the Handbook cited by the Examiner) are “powder metallurgy carbon steels primarily for parts with **moderate strength and hardness**, combined with **machinability**,” iron-copper and copper steel materials, and brass, bronze, and nickel silver parts, which is hardly suggestive of application to frangible bullets. The only part specifically mentioned is, as noted by the Examiner, “*what appears to be bearings or bushings*” (the paragraph to the right of Fig. 9 of the Handbook in fact mentions a “P/M bearing”).

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It is noted that the amendment is in response to the Examiner's comments in items 12 and 13 on pages 4-5 of the Official Action, and in particular the comment that a "projectile" is essentially anything that can be thrown. While the Applicant believes that the term "frangible projectile" should be understood in light of the specification, and that a bushing or bearing in fact is not a "**frangible projectile**" within the meaning of the specification and claims, claim 1 has nevertheless been amended to specifically recite a ~~–frangible bullet–~~. Even if the term "frangible" is interpreted as merely being equivalent to "breakable," as opposed to designed to break upon impact in the manner of a frangible bullet, there is no suggestion of applying the techniques disclosed in the ASM Handbook to a "breakable" bullet rather than an ordinary bullet. The kinds of bullets to which cannellures have previously been applied are not designed to break upon impact, but rather are designed to penetrate a body or target.

Having thus overcome each of the rejections made in the Official Action, withdrawal of the rejections and expedited passage of the application to issue is requested.

Respectfully submitted,

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